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EXAMINER	
PHILPOTT, JUSTIN M	

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/996,105	FEINBERG, PAUL H.	
	Examiner	Art Unit	
	Justin M. Philpott	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 10-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *10-17* is/are allowed.

6)☒ Claim(s) *1-7 and 18-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 1-4, 7 and 18-28 is withdrawn in view of the newly discovered reference(s) to Sutterlin et al. and Haartsen. Rejections based on the newly cited reference(s) follow.

Claim Objections

2. Claims 10 and 27 are objected to because of the following informalities: "re-allocated" (claim 10, lines 8-9) should be changed to "allocated"; "allocated" (claim 10, line 11) should be changed to "re-allocated"; "time period" (claim 27, line 11) should be changed to "time period, and"; and "time period, and" (claim 27, line 13) should be changed to "time period". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19-26 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 19, the passage "whereby ... once on each channel" (lines 12-17) is functional language which is not supported by elements in the claim for carrying out the

function. Accordingly, claim 19 is incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

Claims 20-26 depend upon claim 19 and are rejected for the same reason discussed above regarding claim 19.

Regarding claim 28, a system with a single "means" is indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 18-20 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,355,114 to Sutterlin et al.

Regarding claims 18 and 28, Sutterlin teaches a method of, and system with means for, sending a collection of packets over selected channels comprising: during a first time period (e.g., see FIGS. 11A-11C regarding continuous time, inherently comprising a first period), sending each packet of the collection (e.g., data packets, see col. 15, lines 1-12 and data packets 139 in FIG. 11A) substantially simultaneously such that each packet is sent over a different channel from another one of the packets (e.g., see col. 2, lines 6-7 and col. 5, lines 14-16

regarding data transmitted on both channels); and during subsequent time periods, repeating the prior step until each packet has been sent at least once on each channel (e.g., see col. 2, lines 6-7 regarding "data is redundantly transmitted on both a first and second carrier signal" and col. 2, lines 14-16 regarding "data is transmitted on both channels", inherently requiring transmitting steps to be repeated until each packet has been sent at least once on each channel).

Regarding claim 19, Sutterlin teaches a system of transmitting information comprising: a source of information (e.g., transmitter 8, see FIG. 1), the source including a processor capable of executing instructions (e.g., see col. 2, line 64 – col. 4, line 16 regarding transmitter 8 inherently comprising a processor capable of executing instructions), a destination for information (e.g., receiver 10), a medium (e.g., see FIG. 1 and col. 3, lines 59-61 regarding communication path) connecting the source (e.g., transmitter 8) to the destination (e.g., receiver 10), the medium including a set of channels, each channel being capable of simultaneously carrying information different from the other channels (e.g., see col. 2, lines 6-7 and col. 5, lines 14-16 regarding data transmitted on both channels), the instructions including transmitting a collection of packets of information over a plurality of time periods whereby during any one time period, each packet of the collection is simultaneously transmitted with the other packets such that each packet is associated with a channel different from the other packets (e.g., see col. 2, lines 6-7 and col. 5, lines 14-16 regarding data transmitted on both channels), and whereby over a plurality of time periods, each packet of the collection is transmitted at least once on each channel (e.g., see col. 2, lines 6-7 regarding "data is redundantly transmitted on both a first and second carrier signal" and col. 2, lines 14-16 regarding "data is transmitted on both channels",

inherently requiring transmitting steps to be repeated until each packet has been sent at least once on each channel).

Regarding claim 20, Sutterlin teaches the medium comprises wires (e.g., see col. 3, line 25 – col. 4, line 16 regarding power lines).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sutterlin.

Regarding claims 21-26, Sutterlin teaches the system discussed above regarding claim 19. Furthermore, while Sutterlin may not specifically disclose the medium comprises a broadband cable network (claim 21) or a wireless (claim 23) satellite (claim 24) and/or cellular telephone (claim 25) network, and may not specifically disclose the information comprises video (claim 22), Examiner takes official notice that broadband cable, satellite and cellular networks are well known in the art for transmitting data packets and at the time of the invention it would have been obvious to one of ordinary skill in the art to transmit the data packets of Sutterlin in one of the above-mentioned networks since these networks are well known in the art for data packet transmission. Further, Examiner takes official notice that it is well known in the art for data packets to comprise video information, and accordingly, at the time of the invention it would have been obvious to one of ordinary skill in the art to transmit video information in the

data packets of Sutterlin since it is well known in the art to transmit video information in data packets.

8. Claims 1-7 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sutterlin in view of U.S. Patent No. 6,973,067 to Haartsen.

Regarding claims 1, 5 and 27, Sutterlin teaches a method of, and system with means for, transmitting a collection of information over a multi-channel medium as discussed above regarding claims 18 and 28. That is, Sutterlin teaches associating a first packet of information (e.g., first packet of data 139, see FIG. 11A) with a portion of the collection (e.g., data, see col. 2, lines 3-15) and associating a second packet of information (e.g., next packet of data 139 shown in FIG. 11A) with another portion of the collection (e.g., see col. 4, line 17 – col. 7, line 14), during a first time period (e.g., see col. 2, lines 6-7 and col. 5, lines 14-16 regarding data transmitted on both channels, inherently during a first time period), transmitting the first packet over a first channel of the medium and a second packet over a second channel of the medium (e.g., see col. 2, lines 6-7 regarding "data is redundantly transmitted on both a first and second carrier signal" and col. 2, lines 14-16 regarding "data is transmitted on both channels"). However, Sutterlin may not specifically disclose transmitting particular data packets at specific, different time intervals.

Haartsen, like Sutterlin, also teaches a data packet communications method and system, and specifically, teaches during a second time period (e.g., timeslot at 252a, different from other timeslots 110 such as at 251a or 281a, see FIGS. 2A and 2B), transmitting a first packet (e.g., see abstract, lines 6-8 regarding first data packet; and see data packet A in FIG. 2B) over a second

channel of the medium (e.g., see col. 5, lines 17-21 regarding "timeslots 110 may be transmitted on a separate frequency"), during a third time period (e.g., timeslot at 281a), transmitting a second packet (e.g., packet B) over a first channel of the medium, whereby the first time period is a different time period than the second or third time periods (e.g., see col. 5, lines 17-21 regarding "timeslots 110 may be transmitted on a separate frequency"). Further, regarding claim 5, Haartsen teaches the medium may comprise atmosphere (e.g., see col. 3, lines 32-34 regarding wireless communications). Additionally, the teachings of Haartsen provide a communication system with improved functionality by supporting both packet-switched connections and circuit-switched connections and with increased efficiency and reduced delays (e.g., see col. 3, line 13 – col. 4, line 25). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the data packet communication teachings of Haartsen to the data packet communication system and method of Sutterlin in order to provide improved functionality, increased efficiency, and reduced delays (e.g., see col. 3, line 13 – col. 4, line 25).

Regarding claims 2 and 3, Haartsen teaches the second and third time periods (e.g., for transmitting first and second packets, respectively, as in claim 1) may be either the same or different time periods (e.g., see FIG. 2B regarding various timeslots for each of data packets A and B) such that the first packet is sent over the second channel, and the second packet is sent over the first channel (e.g., see col. 5, lines 17-21 regarding "timeslots 110 may be transmitted on a separate frequency"). As discussed above, the teachings of Haartsen provide a communication system with improved functionality by supporting both packet-switched connections and circuit-switched connections and with increased efficiency and reduced delays (e.g., see col. 3, line 13 – col. 4, line 25). Thus, at the time of the invention it would have been

obvious to one of ordinary skill in the art to apply the data packet communication teachings of Haartsen to the data packet communication system and method of Sutterlin in order to provide improved functionality, increased efficiency, and reduced delays (e.g., see col. 3, line 13 – col. 4, line 25).

Regarding claim 4, Sutterlin teaches the medium comprises wires (e.g., see col. 3, line 25 – col. 4, line 16 regarding power lines).

Regarding claim 6, Haartsen teaches first and second channels relate to different frequencies of transmission (e.g., see col. 5, lines 17-21 regarding "timeslots 110 may be transmitted on a separate frequency"). As discussed above, the teachings of Haartsen provide a communication system with improved functionality by supporting both packet-switched connections and circuit-switched connections and with increased efficiency and reduced delays (e.g., see col. 3, line 13 – col. 4, line 25). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the data packet communication teachings of Haartsen to the data packet communication system and method of Sutterlin in order to provide improved functionality, increased efficiency, and reduced delays (e.g., see col. 3, line 13 – col. 4, line 25).

Regarding claim 7, Sutterlin teaches first and second packets represent different portions of the same content (e.g., see col. 2, lines 3-15).

Allowable Subject Matter

9. Claims 10-17 are allowed.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Application Publication No. US 2001/0008391 by Yuasa, and U.S. Patent No. 6,532,268 to Morisawa each disclose transmitting packet data over a plurality of channels.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M. Philpott whose telephone number is 571.272.3162. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on 571.272.3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Justin M Philpott

ALPUS H. HSU
PRIMARY EXAMINER